

**(19) World Intellectual Property
Organization
International Bureau**



(43) International Publication Date
23 December 2004 (23.12.2004)

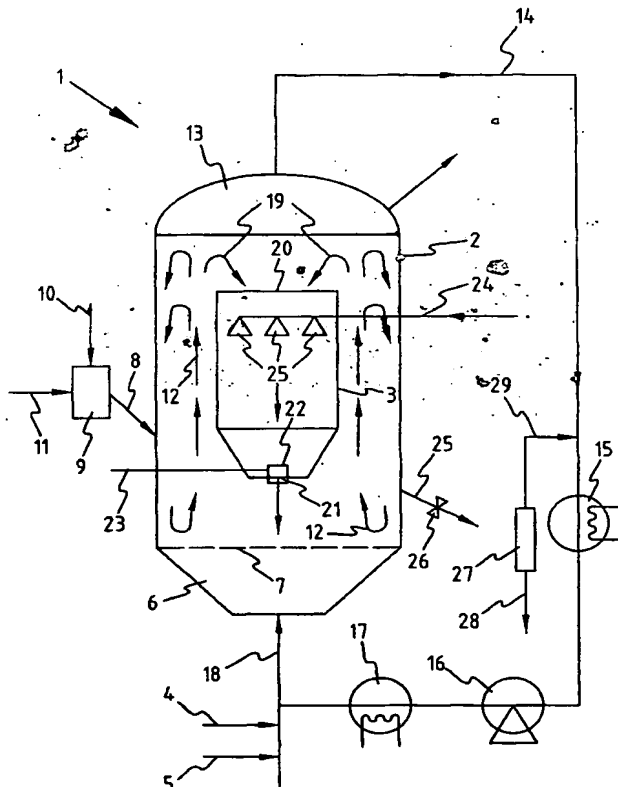
PCT

(10) International Publication Number
WO 2004/111096 A1

- | | | |
|---|--|--|
| (51) International Patent Classification⁷:
2/34, 2/01, B01J 8/08, 8/24 | C08F 10/00, | (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW. |
| (21) International Application Number: | PCT/EP2004/005126 | |
| (22) International Filing Date: | 12 May 2004 (12.05.2004) | |
| (25) Filing Language: | English | |
| (26) Publication Language: | English | |
| (30) Priority Data: | 03076791.7 6 June 2003 (06.06.2003) EP | (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG). |
| (71) Applicant and | | |
| (72) Inventor: WEICKERT, Gunter [DE/DE]; Mühlenweg 31, 48683 Ahaus (DE). | | |
| (74) Agent: PRINS, Hendrik, Willem; Arnold & Siedsma, Sweelinckplein 1, NL-2517 GK The Hague (NL). | | |

[Continued on next page]

- (54) Title: PROCESS FOR THE CATALYTIC POLYMERIZATION OF OLEFINS, A REACTOR SYSTEM AND ITS USE IN THE SAME PROCESS**



(57) Abstract: The invention relates to a process for the catalytic polymerization of olefins, wherein olefins are contacted with a particulate catalyst in a fluidized bed and in a moving bed such that the residence time in the fluidized bed and the residence time in the moving bed are independently controlled, to a reactor system comprising a fluidized bed reactor provided with a reactant inlet, a product outlet and means for maintaining a fluidized bed in the fluidized bed reactor and with a moving bed reactor provided with an inlet directly connected to the fluidized bed reactor and an outlet connected to the fluidized bed reactor such that the residence time in the fluidized bed reactor and the residence in the moving bed reactor are independently controlled, and to its use for the catalytic polymerization of olefins.

WO 2004/111096 A1



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.